Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A heparin-binding peptide of the formula $R_1(X_1B_1B_2X_2B_3X_3Y_1R_2)_nR_3$ or $R_1(X_1B_1B_2B_3X_2X_3B_4X_4Y_1R_2)_nR_3$ wherein:

X₁, X₂, X₃, and X₄ are independently selected from the group consisting of hydropathic amino acids;

B₁, B₂, B₃, and B₄ are independently selected from the group consisting of basic amino acids;

Y₊ is independently

(i) zero amino acid residues, or

(ii) one to ten amino acid residues, wherein at least one of said amino acid residues is proline;

n is an integer from one to ten;

R₁, R₂, and R₃ are independently selected segments containing from zero to twenty amino acid residues, provided, at least one of the segments R₁, R₂, and R₃ comprises at least one hydrophobic amino acid residue; and consisting of an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:5, SEQ ID NO:8 and SEQ ID NO:37,

wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

2. - 29. (canceled)

30. (original) A pharmaceutical composition comprising at least one peptide of claim 1 and a pharmaceutically-acceptable carrier.

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- 31. (withdrawn) A method of reducing plasma heparin levels in a subject in need of such treatment, said method comprising administering to said subject a pharmaceutical composition comprising at least one heparin-binding peptide according to claim 1, in an amount effective to reduce said plasma heparin levels in said subject.
 - 32. (withdrawn) The method of claim 31, wherein said subject is a human.
- 33. (withdrawn) A method of reducing the anticoagulant effects of a heparin in a subject, said method comprising administering to said subject a pharmaceutical composition comprising at least one heparin-binding peptide according to claim 1, in an amount effective to reduce the anticoagulant effects of said heparin.
 - 34. (withdrawn) The method of claim 33, wherein said subject is a human.
 - 35.-48. (canceled).
- 49. (withdrawn; currently amended) A conjugate comprising a heparin-binding peptide according claim 1 or claim 35 conjugated to at least one active agent.
- 50. (withdrawn) A conjugate according to claim 49, wherein said active agent is selected from the group consisting of a cytotoxic active agent, a hormone, a peptide, an antibiotic, a nucleic acid, a radionuclide, an anti-inflammatory active agent, and a polysaccharide.
- 51. (withdrawn) A method of delivering at least one active agent to a tissue or cell displaying high levels of glycosaminoglycans or proteoglycans, said method comprising administering a pharmaceutical composition comprising at least one conjugate of claim 49 and a pharmaceutically acceptable carrier, wherein said conjugate binds to said glycosaminoglycans or proteoglycans and delivers said at least one active agent to said tissue or cell.

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- 52. (withdrawn) The method of claim 51, wherein said tissue or cell is selected from the group consisting of blood vessels, connective tissue, cartilage and endothelial cells.
- 53. (withdrawn; currently amended) A method of treating a mast cell serine protease-associated disorder in a subject, said method comprising administering to said subject a pharmaceutical composition comprising at least one heparin-binding peptide according to claim 1 or claim 35 and a pharmaceutically acceptable carrier in an amount effective to treat the mast cell serine protease-associated disorder.
 - 54. (withdrawn) The method of claim 53, wherein said protease is chymase or tryptase.
- 55. (withdrawn) The method of claim 54, wherein said mast cell serine protease-associated disorder is selected from the group consisting of inflammation, allergic reaction, rheumatoid arthritis, and microbial infection.
- 56. (withdrawn; currently amended) A method of treating a microbial infection in a subject, said method comprising administering to said subject a pharmaceutical composition comprising at least one heparin-binding peptide according to claim 1 or claim 35 in an amount effective to treat the infection.
- 57. (withdrawn) The method of claim 56, wherein said pharmaceutical composition is administered topically.
- 58. (withdrawn) The method of claim 56, wherein the microbial infection is a bacterial infection or a fungal infection.

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- 59. (withdrawn) The method of claim 58, wherein the bacterial infection is selected from the group consisting of an *Enterococcus faecalis* infection, an *Escherichia coli infection*, a *Pseudomonas aeruginosa* infection, and a *Proteus mirabilis* infection.
- 60. (withdrawn) The method of claim 58, wherein the fungal infection is a Candida albicans infection.
- 61. (currently amended) A conjugate comprising a heparin-binding peptide according to claim 1 or claim 35 conjugated to at least one carrier molecule.
- 62. (original) A conjugate according to claim 61, wherein said carrier molecule is selected from the group consisting of collagen, hyaluronic acid and agarose.
- 63. (original) A conjugate according to claim 61, wherein said carrier molecule is further conjugated to a surgical sheet or mat.
- 64. (withdrawn) A method of reducing the anticoagulant effects of a heparin in a subject, said method comprising administering to said subject a pharmaceutical composition comprising at least one conjugate according to claim 61 and a pharmaceutically acceptable carrier, in an amount effective to reduce the anticoagulant effects of said heparin.
- 65. (withdrawn) The method of claim 64, wherein said pharmaceutical composition is administered locally.
- 66. (new) The heparin binding peptide of claim 1 consisting of the amino acid sequence SEQ ID NO:1, wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

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- 67. (new) The heparin binding peptide of claim 1 consisting of the amino acid sequence SEQ ID NO:5, wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 68. (new) The heparin binding peptide of claim 1 consisting of the amino acid sequence SEQ ID NO:8, wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 69. (new) The heparin binding peptide of claim 1 consisting of the amino acid sequence SEQ ID NO:37, wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 70. (new) The pharmaceutical composition according to claim 30, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 71. (new) The pharmaceutical composition according to claim 30, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 72. (new) The pharmaceutical composition according to claim 30, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding

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peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

- 73. (new) The pharmaceutical composition according to claim 30, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 74. (new) The method according to claim 31, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 75. (new) The method according to claim 31, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 76. (new) The method according to claim 31, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 77. (new) The method according to claim 31, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

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- 78. (new) The method according to claim 33, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 79. (new) The method according to claim 33, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 80. (new) The method according to claim 33, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 81. (new) The method according to claim 33, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 82. (new) The conjugate according to claim 49, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 83. (new) The conjugate according to claim 49, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally

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comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

- 84. (new) The conjugate according to claim 49, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 85. (new) The conjugate according to claim 49, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 86. (new) The method according to claim 51, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 87. (new) The method according to claim 51, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 88. (new) The method according to claim 51, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

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- 89. (new) The method according to claim 51, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 90. (new) The method according to claim 53, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 91. (new) The method according to claim 53, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 92. (new) The method according to claim 53, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 93. (new) The method according to claim 53, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 94. (new) The method according to claim 56, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

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- 95. (new) The method according to claim 56, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 96. (new) The method according to claim 56, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 97. (new) The method according to claim 56, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 98. (new) The conjugate according to claim 61, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 99. (new) The conjugate according to claim 61, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 100. (new) The conjugate according to claim 61, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally

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comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

- 101. (new) The conjugate according to claim 61, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 102. (new) The method according to claim 64, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 103. (new) The method according to claim 64, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 104. (new) The method according to claim 64, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.
- 105. (new) The method according to claim 64, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

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